

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

As a preliminary matter, Applicant notes the Office Action's withdrawal of the objections to the title and claim 1.

Claim 3 stands objected to for allegedly being in improper dependent form. Claims 1-4 and 6-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,157,743 to Goris et al. (hereinafter "Goris") in combination with U.S. Patent No. 6,298,404 to Mishra. Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Goris and Mishra in further view of U.S. Patent No. 5,329,616 to Silverbrook.

By this amendment, claims 3, 4, 8 and 9 have been canceled without prejudice to or disclaimer of the subject matter contained therein. Therefore, any outstanding objections to or rejections of these claims have been rendered moot. Claims 1 and 6 have been amended to incorporate the subject matter of canceled claims 4 and 9, respectively, and to further define the subject matter Applicant regards as the invention as discussed in greater detail below. Claim 7 has been further amended and claims 2 and 5 remain unchanged.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. After amending the claims as set forth above, claims 1, 2 and 5-7 are now pending in this application for consideration.

Applicant respectfully submits that each of the independent claims is patentably distinguishable over the cited references as required by § 103. Applicant further submits that none of the cited references, whether considered alone or in combination, discloses Applicant's claimed image processing apparatus *wherein the compressing, the adjusting, the storing the data length of the bits, the determining and the storing the variable-length codes are performed when the image data is compressed, and the converting, the storing each block and the erasing are performed when the image data is subjected to expansion*

processing by the expansion section as required by amended independent claim 1. Amended independent claim 6 recites a similar patentable feature in the context of a method claim. By contrast, the cited references fail to disclose, teach or suggest this claimed feature. Accordingly, independent claims 1 and 6 and claims dependent therefrom are patentably distinguishable over the cited references. This distinction will be further described below.

THE CLAIMS DISTINGUISH OVER THE CITED REFERENCES

In the Office Action, claims 1-4 and 6-9 stand rejected as being unpatentable over the combination of Goris and Mishra and claim 5 stands rejected as being unpatentable over the combination of Goris, Mishra and Silverbrook. In response, Applicant respectfully traverses these rejections, relying on MPEP § 2143, which states that:

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that at least the first and third criteria of MPEP § 2143 have not been met in the Office Action.

The Cited References Do Not Suggest All Claim Recitations

Even if the first requirement of MPEP § 2143 was satisfied in the Office Action (which it is not, as explained below), the cited references still do not meet the third requirement, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

Embodiments of the present invention are directed to an image processing apparatus. The image processing apparatus includes a variable length compression section, an adjusting section, a bit-length storage, a determination section, a variable-length-code storage, a block-data-length conversion section, a page memory and an erasure section. The variable-length compression section performs variable-length compression on image data of each block included in one page and the adjusting section adjusts each block to a constant data length by

adding to or truncating part of a variable-length code of each block obtained by compression by the variable-length compression section. The bit-length storage stores a data length of bits added by the adjusting section to the variable-length code of each block and the determination section determines whether the adjusting section has added respective bits to all blocks included in the one page. The variable-length-code storage stores variable-length codes obtained by erasing the added bits from the variable-length codes of all blocks.

The block-data-length conversion section adds respective bits of different data lengths to variable-length codes of blocks read from the variable-length-code storage, converting data lengths of the blocks into a shorter constant data length than the constant data length, if the determination section determines that the respective bits are added to all blocks, the different data lengths being obtained by subtracting a shortest data length from a data length of each block stored in the bit-length storage. The page memory stores variable-length code of each block with the variable-length code having a constant data length while the erasure section erases the bits added to the variable-length code of each block when the variable-length code is read from the page memory to an expansion section which performs an expansion processing on the image data.

According to one embodiment of the present invention as recited in amended independent claim 1, *the compressing, the adjusting, the storing the data length of the bits, the determining and the storing the variable-length codes are performed when the image data is compressed, and the converting, the storing each block and the erasing are performed when the image data is subjected to expansion processing by the expansion section.* One exemplary embodiment of the present invention is illustrated in FIG. 1 which shows the image processing apparatus 1 including the variable-length compression section 4 in communication with the adjusting section 5 and the variable-length expansion section 14 in communication with the erasure section 13. Support for this claimed feature of independent claim 1 can at least be found on page 7, lines 20-23; page 10, line 11 through page 11, line 8; and page 13, line 4 through page 16, line 8 of the present specification. With this arrangement, the data length of each block can be adjusted in accordance with an image before making the data length of each block constant, thereby reducing the data amount of each page. Also, the amount of code data of each block included in each page can be reduced

which enables an increase of processing speed. Applicant respectfully submits that the cited references fail to teach or suggest this claimed feature.

The primary reference of Goris is directed to a method for retrieving compressed textual data from a memory system. The Office Action at page 7 alleges that the Goris reference teaches all of the features of claim 1 except a determination section which determines whether the adjusting section has added respective bits to all blocks included in the one page. The Office Action then asserts that the Mishra reference teaches this claimed feature. Even assuming arguendo that the Mishra reference does in fact disclose the claimed determination section, Applicants respectfully submit that neither Goris nor Mishra discloses the claimed arrangement of *the compressing, the adjusting, the storing the data length of the bits, the determining and the storing the variable-length codes are performed when the image data is compressed, and the converting, the storing each block and the erasing are performed when the image data is subjected to expansion processing by the expansion section*. This is because neither reference discloses the claimed expansion section which performs expansion processing on the image data as now required by the claim. The Silverbrook reference also fails to disclose this claimed feature and was not cited for that purpose. Thus, for these reasons alone, independent claim 1 is allowable. Amended independent claim 6 recites a similar patentable feature in the context of a method claim. Thus, for substantially the same reasons advanced above with respect to independent claim 1, claim 6 is also allowable.

Claims dependent from allowable independent claims 1 and 6, namely claims 2, 5 and 7, are allowable by virtue of their direct or indirect dependence from allowable independent claims 1 and 6 and for containing other patentable features.

In sum, even if the first requirement of MPEP § 2143 is satisfied, the third requirement of MPEP § 2143 is not satisfied in the Office Action, since the cited references do not teach each and every element of the present invention. Thus, the present claims are allowable.

Lack of Suggestion or Motivation to Modify or Combine the References

The Supreme Court in the *KSR Int'l Co. v. Teleflex, Inc.*,” 127 S.Ct. 1727 (U.S. 2007), recently clarified the standards for obviousness. For example, the Court has stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR* at 1741. In addition, the Court in *KSR* stated that a reason to combine elements should be made explicit. *Id.* at 1740-41.¹ Indeed, the Court approvingly cited *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), for requiring an articulated reason. *Id.* at 1741.²

Goris is devoid of any reason why one of skill in the art would incorporate the teachings of Mishra into Goris. The Office Action at pages 7 and 8, states that combining the references would “maintain high page per minute processing capabilities.” Thus, the proffered motivation, even assuming that the underlying results do in fact occur from general implementation of the teachings of either Goris or Mishra, does not mean that the ordinary artisan would have incorporated the determining section of Mishra into the apparatus for retrieving compressed textual data from a memory system of Goris.

Instead, the Office Action all but relies on Applicant's disclosure for motivation to modify the primary reference of Goris to arrive at the claimed invention, the Office Action citing nothing in the prior art that provides the specific motivation to modify the references to arrive at the invention as claimed. Thus, the PTO has not properly articulated a reason for why one with ordinary skill in the art would combine the teachings of Goris and Mishra. Because the PTO has not provided sufficient reasons to combine the teachings of Goris and Mishra, any rejection based on this combination is improper. Accordingly, the claims are not rendered unpatentable over the prior art.

¹ “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” *Id.* at 1740-41.

² “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” *Id.* at 1741.

In summary, because of the lack of suggestion or motivation in the prior art to modify the reference, the first requirement of MPEP § 2143 has not been met and, hence, a *prima facie* case of obviousness has not been established.

Applicant respectfully submits that independent claims 1 and 6 are patentably distinguishable over the cited references and thus, allowable. Moreover, since independent claims 1 and 6 are allowable, claims dependent therefrom, namely claims 2, 5 and 7 are also allowable by virtue of their direct or indirect dependence from allowable independent claims 1 and 6 and for containing other patentable features. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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